PERINEAL AND SUPRAPUBIC PROSTATECTOMY AND CHOICE OF OPERATION IN TYPES OF CASES *

Chairman's Address, Section on Urology

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Since Goodfellow, in 1893, performed the first perineal prostatectomy and Freyer, in 1900, the first sub-total enucleation suprapubically, progress has been rapid and constant, until at the present time both operations may, in the majority of cases, be completely visualized and, in a large measure, ordinary surgical principles observed. One difficulty after another has been surmounted. Preparation, the most important factor of all, is now among urologists universally the great desideratum. Technic and management have been so perfected in both types of approach that, in experienced hands, the incidence of mortality and morbidity should be very low. When Young, in 1903, modified and perfected the Proust operation, he builded so well that the various modifications (Hinman, Geraghty, Dillon, Cecil, as well as modifications suggested by Young himself) have added little of real value to the original procedure. The average mortality rate by the perineal route in the hands of the foremost operators has been about 4 per cent (Young). The incidence of morbidity, however, has been somewhat greater.

The shortcomings of the perineal operation are: (a) Incomplete removal; (b) Various degrees of incontinence following; (c) Decrease or loss of sexual power; (d) Recto-urethral fistula—rarely seen except after operation by the inexperienced.

Incomplete removal is often followed by residual urine and occasionally by a certain degree of incontinence. Incontinence is more apt to follow one of the newer procedures—enucleation en masse even though the external sphincter is not injured. There can be no question that the sexual power of the individual is very often markedly lessened or destroyed by this type of approach. This has been attributed to injury of the periprostatic nerve plexus, and is also probably due at times to injury of nerves in the perineum. One is inclined to dismiss this factor as unimportant; but the loss of all sexual desire frequently has a profound psychic effect on men around 60 to 65 years of age. Recto-urethral fistula can almost always be avoided. Admittedly, and, in fact, all the bad results above mentioned do occur with even the most skillful and experienced operators.

Suprapubic prostatectomy, either by the two-stage operation or the one-stage open visualized operation, after the method first suggested by Hurry Fenwick, improved and perfected by Chute, Judd, and Hunt, in which bleeding vessels at the bladder-neck are whipped over and tied, followed or not by the use of a hemostatic bag, in properly selected cases, affords practically as low a mortality as the perineal operation, and the functional and structural results are not left to a certain chance as they are by the perineal operation. Incontinence is unknown after a proper suprapubic enucleation, and the gland can be readily enucleated more radically, enabling the bladder to empty itself completely. Sexual function is not affected adversely.

Many operators (Gardner, Hunt, Bugbee, Lower, MacKenzie and others) have reported a large series with a mortality rate of 2 to 2½ per cent. In fact, with good fortune Gardner and Lower had more than 100 consecutive cases without a death, and Hunt and Judd over 100 with one death, using sacral and perisacral anesthesia and field-block for the abdomen. Freyer had an operative mortality of 5.25 per cent in his series of 1625 cases, and most of these at a period when accurate methods of determining kidney function and retained nitrogen were unknown. When we consider this low mortality, however, by either type of operation, we must believe that these cases were largely among the better risks—well-to-do patients for the most part, who did not allow the prostatism to advance to the ultimate. Probably Chute's recently reported mortality rate of 10 or 11 per cent is more nearly the correct one for patients operated on in general hospitals supported by taxpayers, where patients so often go only as a last resort. These patients often present themselves to these hospitals in the late stages, after the kidneys, heart, and other organs have suffered the most marked degeneration from retention, back-pressure, and long-existing infection.

Studying the statistics of many operators, either published or learned by personal communication, leads to the conclusion that perineal prostatectomy has a slightly less mortality rate than suprapubic when each is performed in the most skillful manner after the most careful preparation.

From 15 to 35 per cent of patients suffering from prostatitis coming to operation—the percentage in a given series varying with social status, financial state and degree of intelligence—constitutes the class in whom we may expect our largest mortality. These come with all sorts of lesions and degenerations in heart, kidneys, arteries, lungs and other important organs, and any ill wind may carry them off. In fact, if they survive prostatectomy, their expectancy of life is not more than one to three years. On the other hand, the remaining 65 per cent or more are excellent risks and if carefully prepared, have good surgery and are wisely managed post-operatively, should recover almost to a man, no matter what type of operation is performed.

Recently we have been segregating our cases as follows: The good risk we have subjected to suprapubic operation, either one-stage with bladder-neck suture plus hemostatic bag or packing, or the two-stage operation if catheter is not well tolerated or the urine is persistently ammoniacal from infection with urea-splitting organisms or stone is present. Packing the bladder after the manner of Freyer after the two-stage operation is occasionally resorted to and is entirely dependable to control bleeding. It is productive, however, of much tenesmus.

With the poor risk, on the other hand, we have recently decided, in most cases, to operate by the perineal route. With caudal and transsacral anesthesia, or even with gas, it allows them to get about

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very soon, and this is an important factor in many of these decrepit old men, who develop pulmonary, cardiac and renal embarrassment most readily.

Limited time does not allow me to discuss in detail the well-established methods of management from the moment the patient is first seen until he is fully convalesced.

The above-stated opinions are based on more than 200 prostatectomies performed by myself, about 20 per cent of which were done perineally. There has been no death among the perineal cases since the days of 'phthalein. In private practice my mortality rate after suprapubic prostatectomy has been 4.3 per cent and this, notwithstanding that until recently all the bad risks were done suprapubically in two stages.

CONCLUSIONS

1. Sixty-five per cent or more of patients requiring prostatectomy are good risks and have a reasonable expectancy of life from 4 to 20 years.
2. Operative mortality rate in this selected class of cases should not be more than 1 per cent from either type of operation.
3. Choice of anesthetic is a great factor. Mortality has shown a considerable drop with the introduction and use of caudal and transsacral or gas anesthesia for perineal operations and caudal and transsacral plus field-block in suprapubic operations or the use of spinal anesthesia.
4. From 15 to 35 per cent of any given series are poor risks, and the mortality rate is probably at least twice as great in these cases with the suprapubic route as it is perineally. These cases have a reasonable expectancy of not more than 1 to 3 years at best, and should be satisfied to take the chance of an occasional bad functional result.
5. On the other hand, the younger and sounder man with a reasonable expectancy of a considerable number of years to live and vitality sufficient to withstand a more radical and precise suprapubic enucleation, with sure preservation of sphincter control, no diminution of sexual power and no risk of having a urethrorectal fistula, I believe, should have the suprapubic operation in all cases. Bad results after suprapubic operations should not occur; but if they do occur, they are easily corrected. Most bad results after perineal operations are irremediable.

DISCUSSION BY GRANVILLE MAC GOWAN

Dr. Day's presentation of the dangers attending and the benefits to be expected from employment of the usual methods of getting rid of the obstructive and irritative interference to urination in cases of prostatism has the advantage of the clearness of vision arising from an unbiased mind and a wealth of observant experience.

The desideratum is that no surgeon should allow himself to become a fighting partisan for the operation of Mr. Him or that of Professor Who. The fact that these different techniques exist and that most men upon whom they are used make satisfactory recovery from their embarrassing ailments, speaks well for all of them. If it be but known, each has its definite cases to which it is best fitted. To select these cases is an art not of universal possession. The mortality rate of any operator depends not only upon his technical skill as a surgeon, including an intimate and exact knowledge of the anatomy of the perineum in the male, but that of the fascial bed in which the bladder is found lying when it is approached from above, and of the interrelations of the organs of the pelvic basin. On the watch for the dangers which lurk and cower to spring upon the unwary from Scylla above or Charybdis below, free of the pride of the egoist who jeopardizes with nonchalance the interest of his client, by sacrifice of accuracy to speed—if the surgeon knows enough of medicine to properly prepare his client for the ordeal of operation and to carry him through the subsequent storm without too much meddling, in private practice the mortality rate should not exceed 2 per cent, whether the approach to the prostate be from above, visualized or not, one stage, two stage; or a Young's perineal prostatectomy from below, with or without drainage. The nature of the malady is such that the ultimate result is not always entirely satisfactory to either the operator or the patient, but a greater mortality in private hospitals nowadays than 2 per cent is attributable only to lack of skill, lack of care, or unsound judgment upon the part of the operator. It is my belief and my claim that no risk is ever added in the case by a preceding suprapubic operation for preliminary drainage, the bugaboo of some writers, that a little surgical care, easily learned and simple to carry out, can make as innocuous and foolproof as any process in surgery can be made. No man should ever lose his life from an operation required for suprapubic drainage, from the operation itself.

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ACKNOWLEDGMENT OF REPRINTS

Duncan, Rex., X-Ray in the Treatment of Neoplastic Diseases from a Pathological Standpoint.

See Witter, Calvin.

Green, A. S. and L. D., The Intracapsular Expression Extraction of Cataract. Reprinted from the Archives of Ophthalmology, Vol. LI, No. 4, 1922.

Kiger, William H., The Percy Method of Treating Cancer of the Uterus Applied to Treatment of Cancer of the Rectum.

Kreutzmann, Henry A. R., The Treatment of Hunner's Ulcer of the Bladder by Fulguration. Reprinted from the California State Journal of Medicine, April, 1922.

An Unusual Reaction Following Antiluetic Treatment, with a Discussion of the Jarisch-Herxheimer Reaction. Reprinted from the American Journal of Syphilis, Vol. VI, No. 3, July, 1922.

Studies in Ureteral Catheterization. Preliminary Report. Reprinted from the California State Journal of Medicine, September, 1922.

Rowe, Albert H., Focal Infection from the Internist's Point of View. Reprinted from Northwest Medicine, February, 1923.

The Diagnosis and Treatment of Thyroid Disease as Controlled by the Metabolic Rate. Reprinted from Endocrinology, Vol. VII, No. 2, pp. 256 to 272.

Insulin Treatment of Diabetes Mellitus. Reprinted from the California State Journal of Medicine, May, 1923.

Witter, Calvin, and Duncan, Rex., Effect, Reaction, and Some Dermatologic Uses of the Actinic Ray. From the Radium and Oncologic Institute.

Wright, Harold W., Mental Conditions in Childhood—Some general considerations with respect to the detection and correction of undesirable tendencies by individual personality studies of the child and the relation of such tendencies to future inefficiency, unhappiness, and possible serious mental diseases; also their relation to education. Reprinted from Journal of Delinquency, Vol. VIII, No. 2, March, 1923.